

**ABSTRACT OF THE DISCLOSURE**

The present invention provides a human selenium-binding protein (HSEBP) and polynucleotides which identify and encode HSEBP. The invention also provides genetically engineered expression vectors and host cells comprising the nucleic acid sequences encoding HSEBP and a method for producing HSEBP. The invention also provides for agonists and antibodies specifically binding HSEBP, and their use in the prevention and treatment of diseases associated with expression of HSEBP. Additionally, the invention provides for the use of antisense molecules to polynucleotides encoding HSEBP for the treatment of diseases associated with the expression of HSEBP. The invention also provides diagnostic assays which utilize the polynucleotide, or fragments or the complement thereof, and antibodies specifically binding HSEBP.